Carolyn Pampino, Rational Program Director, Strategic IT Offerings
IBM Software, Rational
June 20, 2011

IBM

Open Mic Series

IBM Rational solution for Collaborative Lifecycle Management

Software and Systems Engineering | Rational

Agenda

1 Market Snapshot – Jazz resonance and sales impact

2 The Five ALM Imperatives

3 What's New in IBM Rational Collaborative Lifecycle Management (CLM) 3.0

Complexity creates opportunity

Cost Reduction

70% budget locked in maintenance and **37%** of projects go over budget

Increasing Mandates

2010 Spending in U.S. on governance, risk and compliance was **$29.8 billion**

Globally Distributed Software and Product Supply Chains

50% of outsourced projects are expected to under perform

Complex, Multi-platform Systems and Applications

62% of companies have agile projects requiring integration with legacy systems

Unpredictability in Software Delivery

62% of projects fail to meet intended schedule

Changing Requirements and Time to Market

30% of project costs are due to rework and poor execution of requirements

Clients seek expertise and solutions in the following areas

Decide
Help me make strategic decisions
Sell Enterprise Architecture and Portfolio Solutions

3 inter-related lifecycles of activity involving different goals, timelines, roles, processes and tools.
Primary solution sell RRC, RTC, RQM

Develop
Help me develop what I decide
Sell Application Lifecycle Management Solutions

ALM is a market.
CLM is a solution and refers only to the specific combination of RTC, RQM and RRC. CLM is one of several ALM solutions.

Deploy
Help me deploy what I develop
Sell Deployment Planning & Automation Solutions

Integrate, Instrument & Improve
Help me oversee this entire value chain and incrementally improve

IBM leadership dominates marketplace

Figure 5 Forrester Wave™: Agile Development Management Tools, Q2 '10
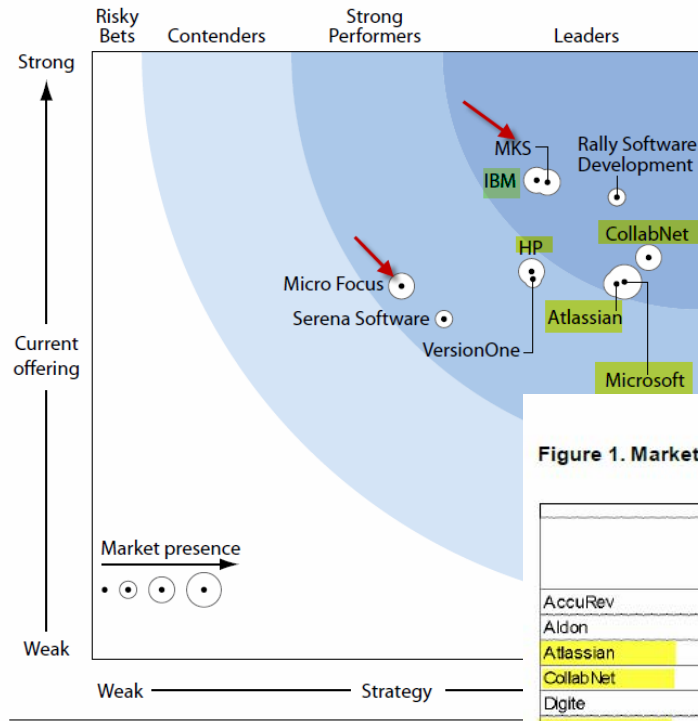
MAGIC QUADRANT

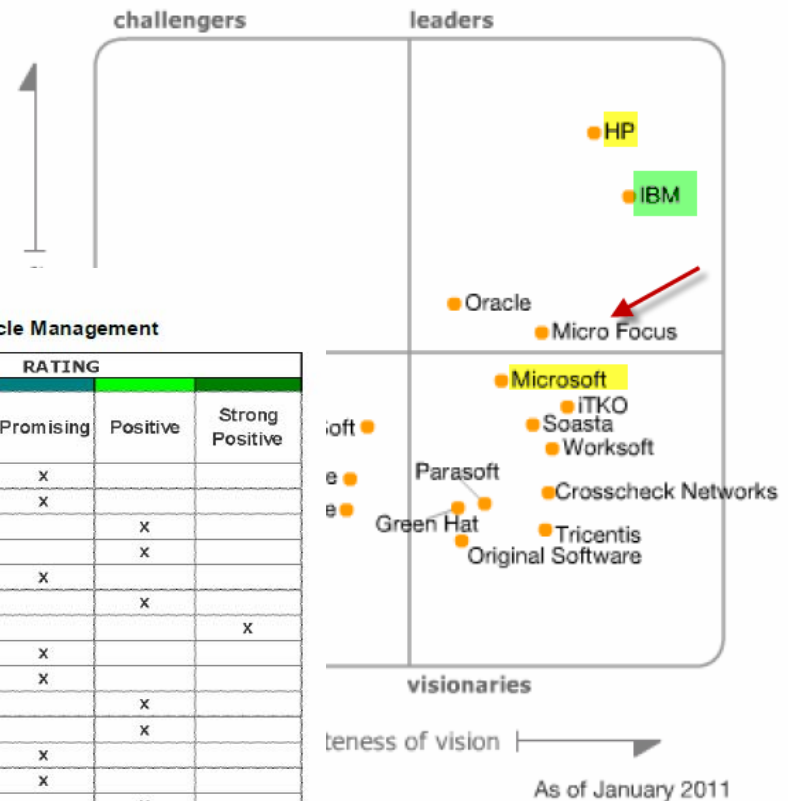**Figure 1. Magic Quadrant for Integrated Software Quality Suite**

Figure 1. MarketScope for Application Life Cycle Management

	RATING				
	Strong Negative	Caution	Promising	Positive	Strong Positive
AccuRev			x		
Aldon			x		
Atlassian				x	
CollabNet				x	
Digite			x		
HP				x	
IBM					x
Kovair			x		
Micro Focus			x		
Microsoft				x	
MKS				x	
Parasoft			x		
Polarian Software			x		
Rally Software				x	
Seapine Software			x		
Serena Software				x	
SmartBear Software			x		
TechExcel			x		
ThoughtWorks			x		
VersionOne				x	

As of 11 November 2010
Source: Gartner (November 2010)

Gartner MarketScope for Application Life Cycle Management
IBM Rational earns "Strong Positive" – the highest possible rating

Gartner.

Efficient coordination and automation of the delivery process **requires new, collaborative approaches** to the planning, measurement, execution, control and reporting of activities.

These **new approaches are what differentiate current application life cycle management (ALM)** tools, and what make ALM processes vital to leading-edge development activities.

ALM is what **enables sustainable agile practices.** ALM creates a management framework providing consistent, auditable records of the decisions and activities of agile teams.

IBM earns "Strong Positive"
the highest possible rating

	RATING				
	Strong Negative	Caution	Promising	Positive	Strong Positive
AccuRev			x		
Aldon			x		
Atlassian				x	
CollabNet				x	
Digite			x		
HP				x	
IBM					x
Kovair			x		
Micro Focus			x		
Microsoft				x	
MKS				x	
Parasoft			x		
Polarian Software			x		
Rally Software				x	
Seapine Software			x		
Serena Software				x	
SmartBear Software			x		
TechExcel			x		
ThoughtWorks			x		
VersionOne				x	

IBM

What customers are saying…

"**The Jazz platform is a game changer…** Very quickly, the developers came to the conclusion themselves that we would really **raise the bar** with Rational Team Concert, that we are able to do things that we couldn't possibly do in any of the other toolsets."
– Bob Aiello, CM Crossroads

→ **Link to video**

"**We are seeing an amazing sort of collaborative effect** that you know of course the experts say that's what happens, but it's kind of remarkable to see it happen in real life … we have seen a reduction in the effort spent on requirements from about 21% of our overall effort in development down to 9%."
– Mia McCroskey, Emerging Health IT

→ **Link to video**

"What's important for us that these tools are communicating. The Jazz based tools are well fitting to the whole portfolio so **we can protect our investments**."
– Daniel Pfeffer, DHL

→ **Link to video**

"The integration, the collaboration, the openness of the platform: It's no secret what's going on into Jazz. That **makes our company capable of doing things with customers that was not possible just a couple of years ago.**"
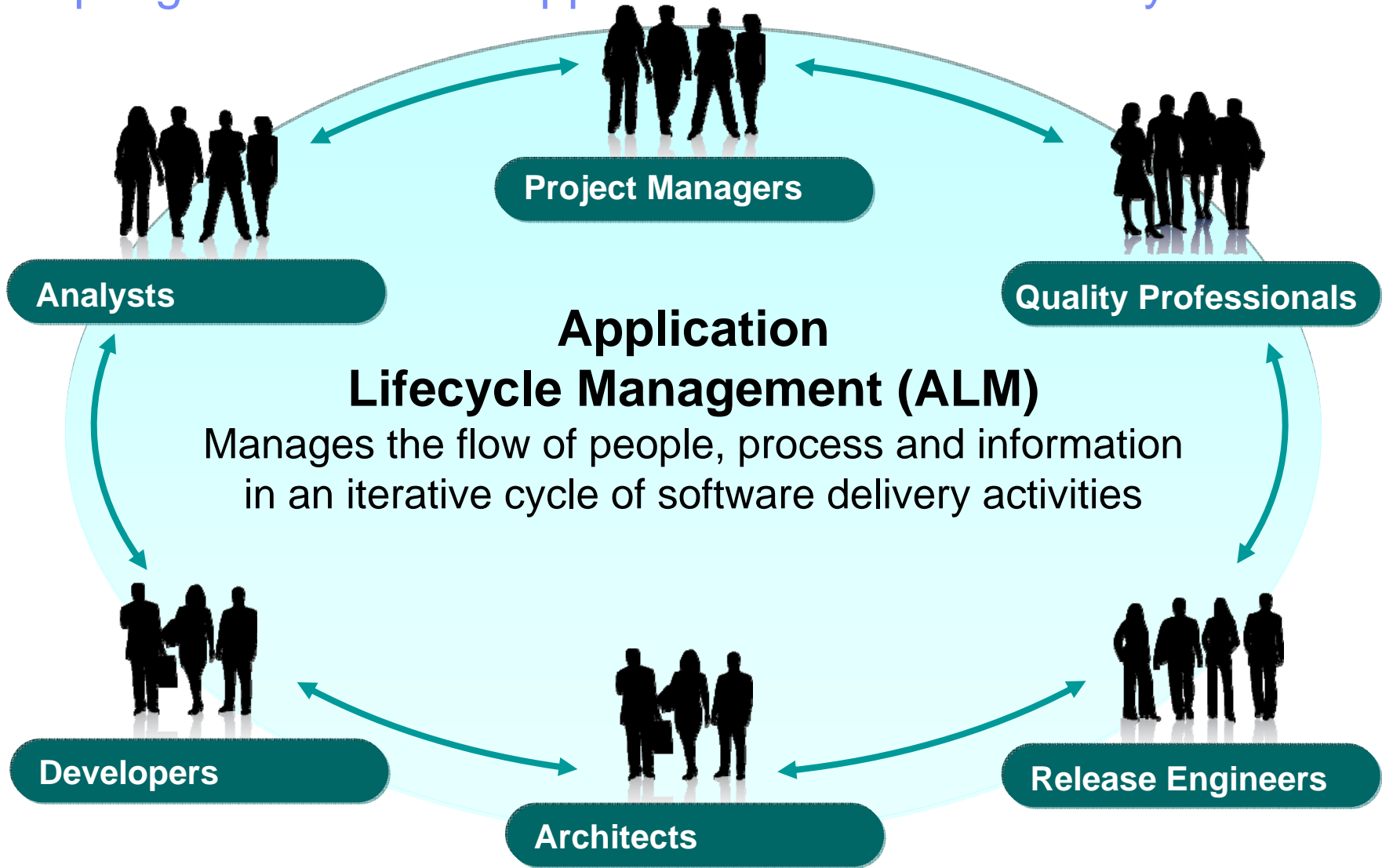– Peer Eeland, Tieto

→ **Link to video**

Agenda

1 Market Snapshot – Jazz resonance and sales impact

2 The Five ALM Imperatives

3 What's New in IBM Rational Collaborative Lifecycle Management (CLM) 3.0

Adopting a whole-team approach to software delivery

Project Managers

Analysts

Quality Professionals

**Application
Lifecycle Management (ALM)**
Manages the flow of people, process and information
in an iterative cycle of software delivery activities

Developers

Architects

Release Engineers

What is required to deliver end-to-end visibility across teams, tools and projects?

The Five Imperatives of Application Lifecycle Management
Improve organizational productivity

1. **Accelerate time to delivery with real-time planning**

2. **Improve quality with lifecycle traceability**

3. **Maximize value with in-context collaboration**

4. **Refine predictability with development intelligence**

5. **Reduce costs with continuous improvement**

What is Real-time Planning?

Real-time Planning improves time to delivery by:

– Providing a **single plan** that spans requirements, development, and test, ensuring a team understanding of the overall scope of a project

– **Integrating planning with execution,** ensuring the entire team understands the true project status

– Allowing **everyone to participate** in keeping the plan current and accurate

– Helping teams **respond to the unexpected** in a timely manner ensuring the team stays on schedule
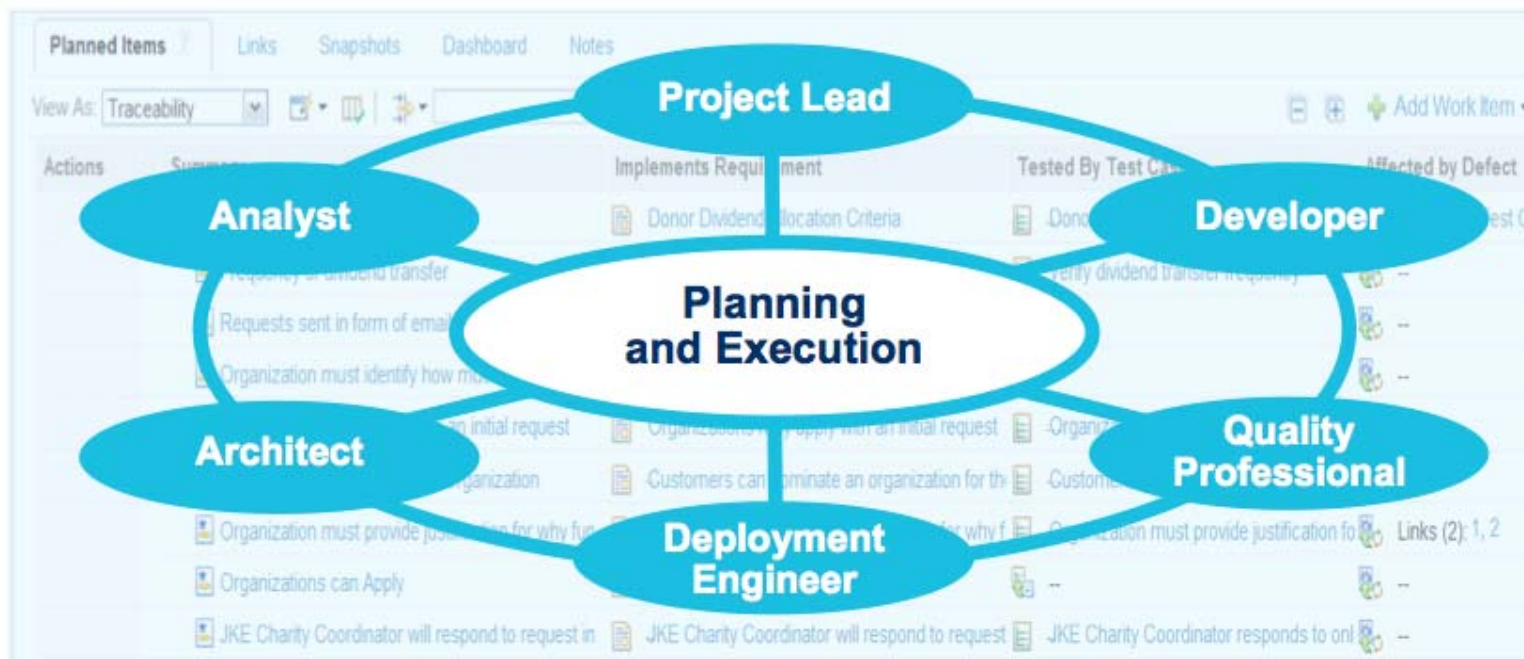
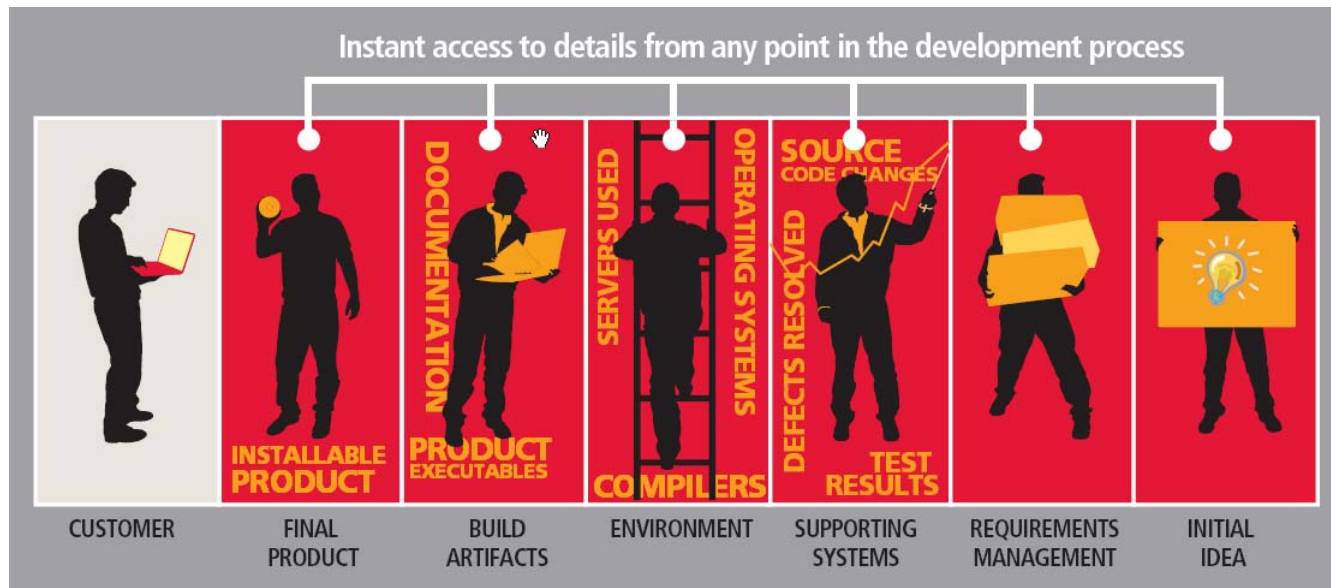# Test your real-time planning capabilities
Can your team…

- Plan across the entire team?

- Plan for waterfall, iterative
  and agile environments?

- Integrate planning with execution?

- Instantly see the impact of a change
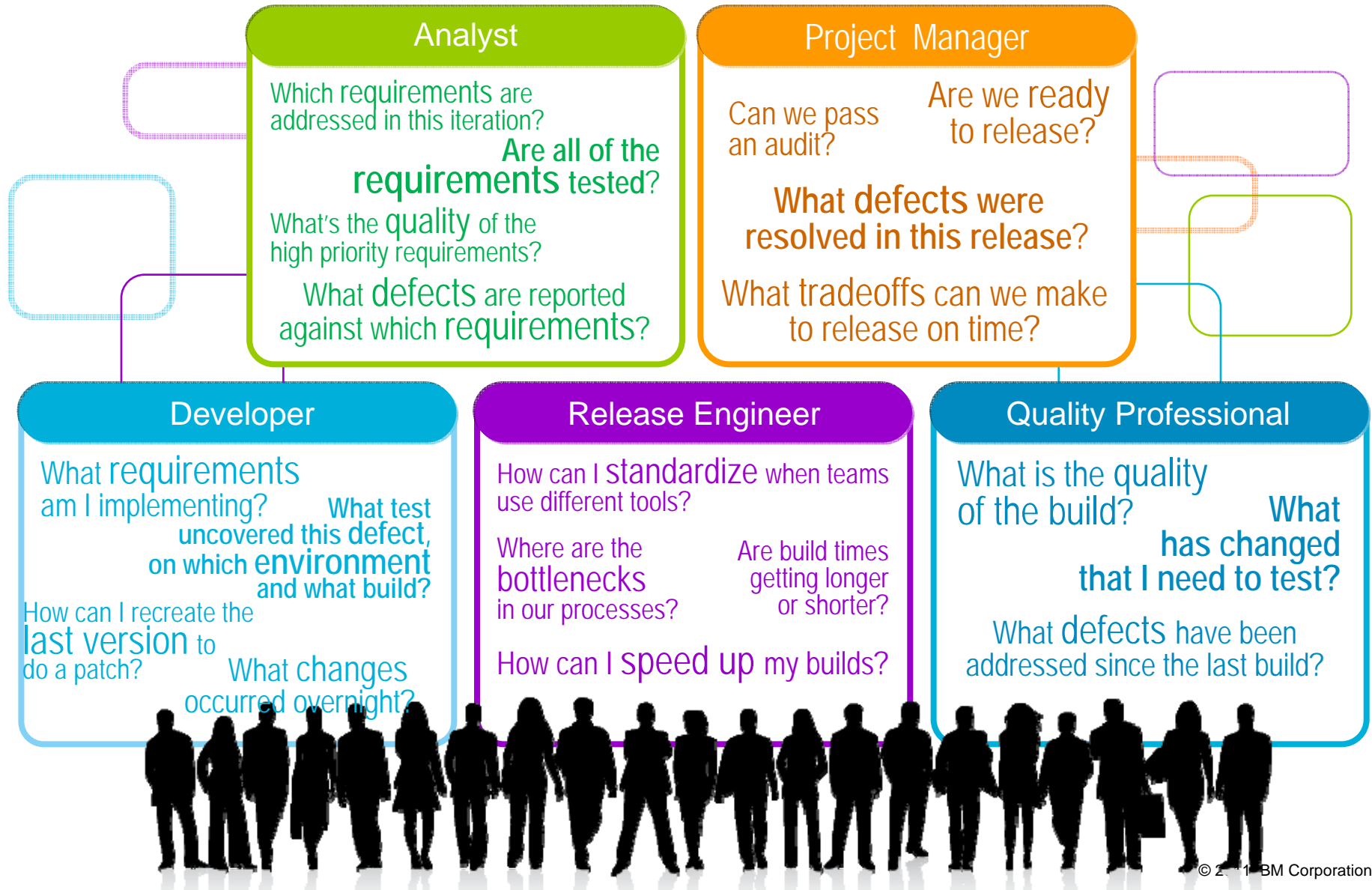 in project scope or resources?

What is Lifecycle Traceability?

Lifecycle Traceability improves quality by:

- Establishing **relationships between software artifacts**

- Helping you **identify and close artifact gaps,** ensuring **coverage** across disciplines

- Provides visibility into the **completeness** of planned items by inspecting all related artifacts

- Provides easy **access to related artifacts** ensuring everyone shares the same view

- Delivers transparency which enables everyone to make **fully informed decisions** based business priorities

IBM

Test your lifecycle traceability capabilities

Can your team answer these questions…

Analyst

Which requirements are addressed in this iteration?

Are all of the requirements tested?

What's the quality of the high priority requirements?

What defects are reported against which requirements?

Project Manager

Can we pass an audit?

Are we ready to release?

What defects were resolved in this release?

What tradeoffs can we make to release on time?

Developer

What requirements am I implementing?

What test uncovered this defect, on which environment and what build?

How can I recreate the last version to do a patch?

What changes occurred overnight?

Release Engineer

How can I standardize when teams use different tools?

Where are the bottlenecks in our processes?

Are build times getting longer or shorter?

How can I speed up my builds?

Quality Professional

What is the quality of the build?

What has changed that I need to test?

What defects have been addressed since the last build?

What is In-Context Collaboration?

*In-Context Collaboration improves product value by:*

– Making **information <u>immediately</u> accessible** to all team members in the context of their work

– Empowering teams to collaborate on and review software development artifacts so they can **incorporate feedback early and often**

– Providing **single source of truth** hosted in a shared repository so that team members can collaborate effectively around the globe
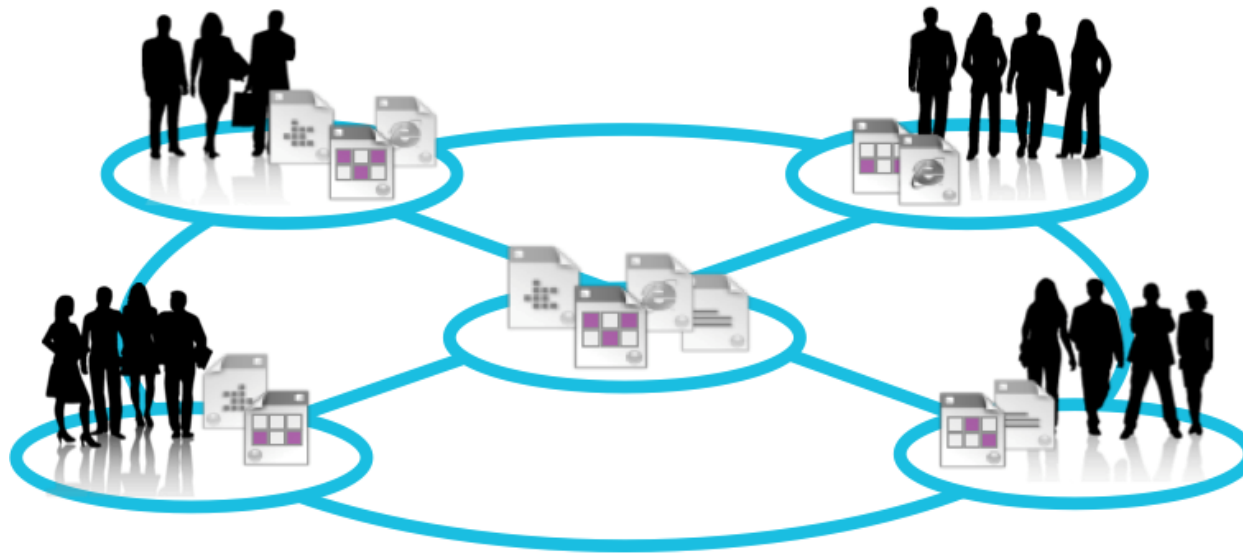
Test your In-Context Collaboration capabilities
Can your team…

- Easily access the "single source of the truth"
  through linked artifacts?

- Quickly grasp the "who, what,
  when and why" of team activities?

- Bring new team members
  up-to-speed quickly?

- Overcome the barriers of multiple time zones
  when working with outsourced
  and distributed team members?
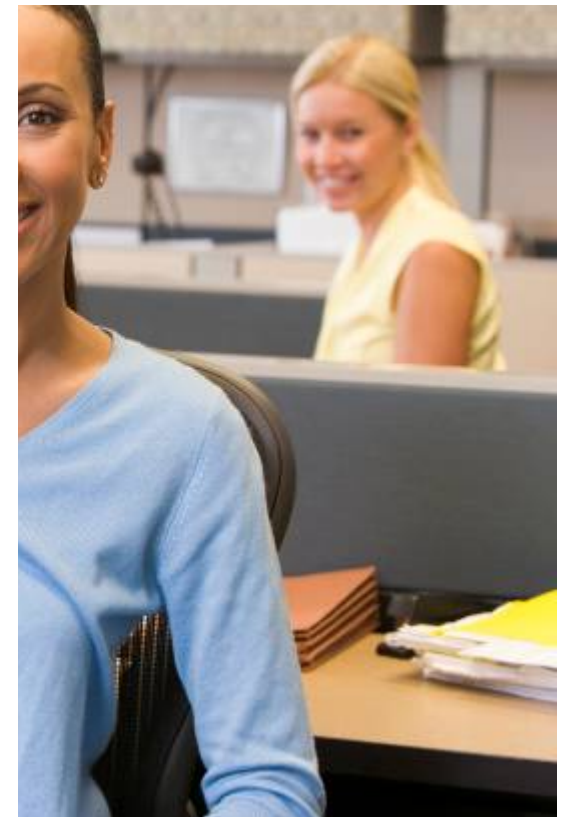
What is Development Intelligence?

Development Intelligence improves predictability by:

- Applying **Business Intelligence techniques** to software and systems development

- Enabling **fact-based decision making** (to communicate status, monitor progress, diagnose problems, identify corrective actions)

- **Steering projects and programs** to deliver on-time

Measurement Practices Impact Project Success

	Weak measurement practice	Strong measurement practice
Cancelled	15%	5%
Late	40%	20%
On-time	45%	75%
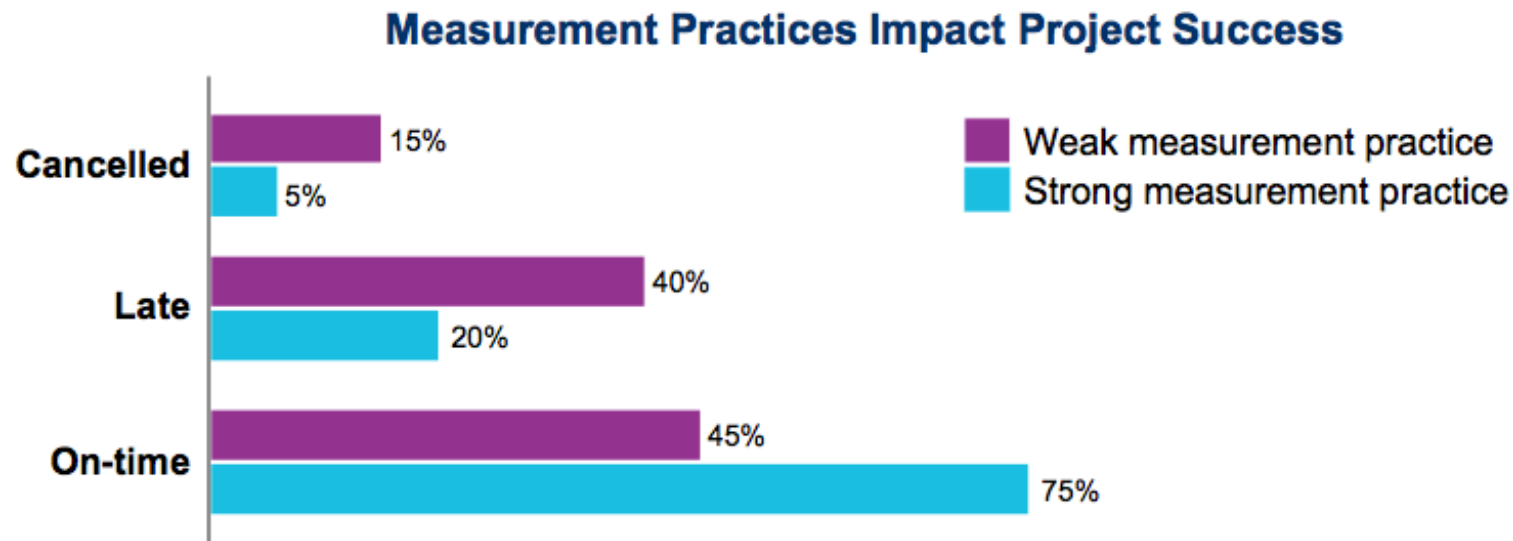
Source: Capers Jones, Measurement, Metrics and Industry Leadership, 2009 and Software Engineering Best Practices, McGraw Hill, 2010.

Test your development intelligence
Can your team…

- **Time-to-Value**
  - Produce the right capabilities according to the committed schedule?

- **Product Value**
  - Deliver a valuable product?

- **Product Cost**
  - Measure what we spending to deliver the system?

- **Product Quality**
  - Build a high quality system?

- **Predictability**
  - Manage the risk and uncertainty?

What is Continuous Improvement?

Continuous Improvement reduces cost by:

- Improving software delivery through the ongoing **adoption of best practices and automation** to reduce manual, non-creative and error prone tasks

- Promoting **incremental improvement of a project** when needed

- Enabling breakthrough improvement by **capturing best practices and reusing** across teams

- Allowing **everyone to participate** with easy to adopt best practices at your fingertips.

Assess
ROADMAP
Act
Steer
jazz

"Successful analytics requires taking it beyond software and reporting, and into the realm of management practices and operations improvement."

Information Management Online, February 23, 2011

Test your Continuous Improvement capabilities
Can your team…

- Leverage out-of-the-box process templates for traditional and agile workflows?

- Change process "on the fly" as part of a continuous feedback loop?

- Allow team leads to determine how strict or lax the "rules of the road" should be?

- Modify process enforcement over the life of a project, to encourage early-stage experimentation and end-game stability?
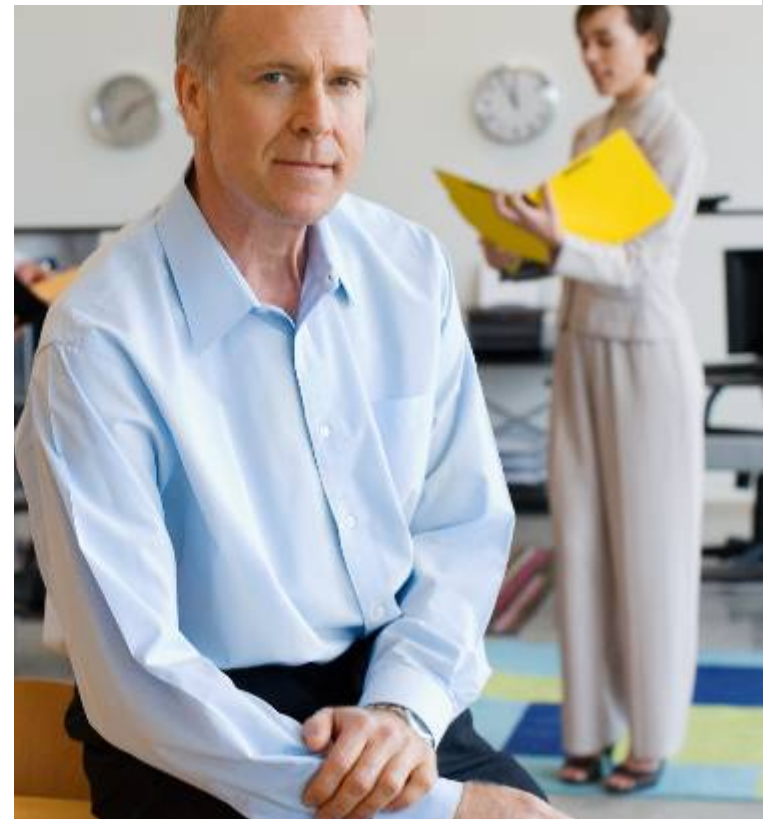
Interactive Whiteboard – ALM Everywhere

https://www.ibm.com/services/forms/signup.do?source=swg-rtl-sd-demo&S_PKG=dm_ALM-everywhere
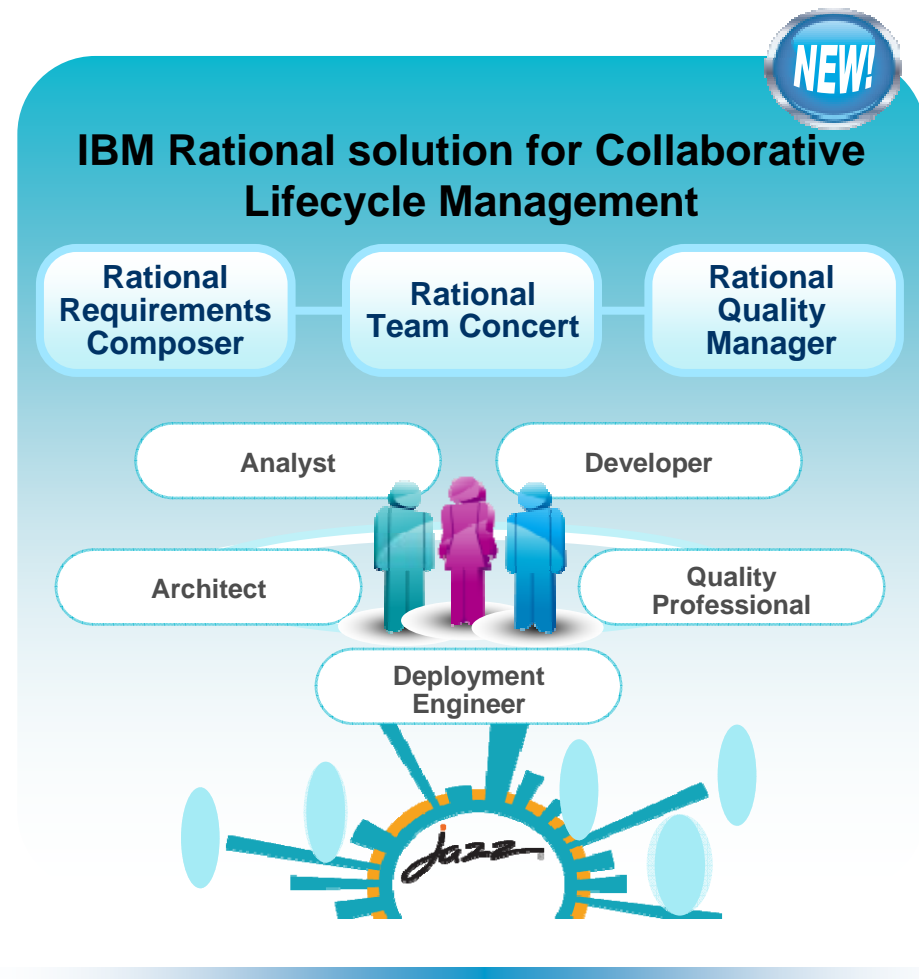
Agenda

1 Market Snapshot – Jazz resonance and sales impact

2 The Five ALM Imperatives

3 What's New in IBM Rational Collaborative Lifecycle Management (CLM) 3.0

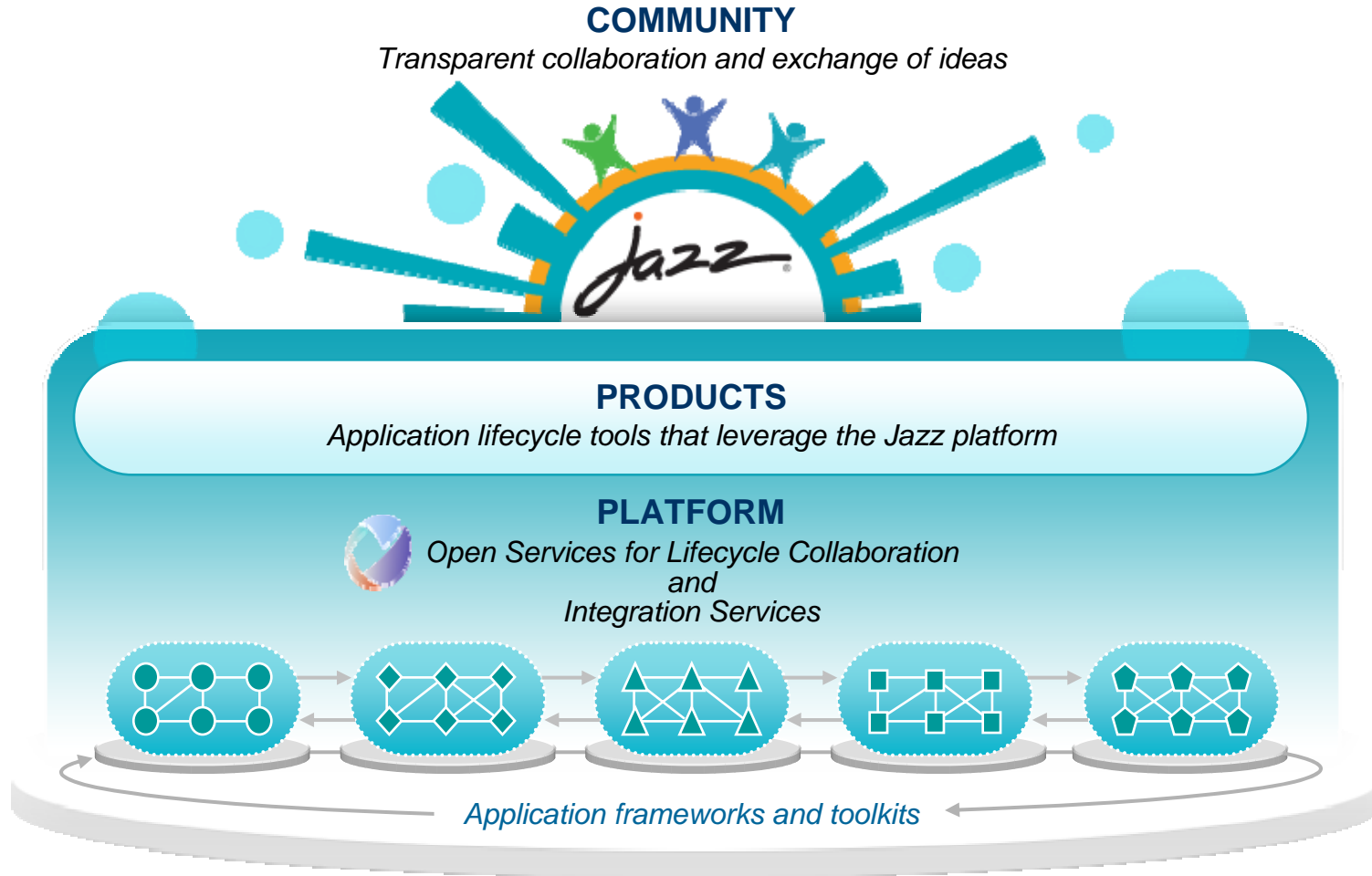# IBM Rational solution for Collaborative Lifecycle Management
Improve productivity with an integrated ALM solution

- **Optimize your team through support of the 5 ALM Imperatives**
  - Real-time planning
  - Lifecycle traceability
  - In-context collaboration
  - Development Intelligence
  - Continuous Improvement

- **Get up and running quickly**

- **Extend as your needs evolve**

- **Support heterogeneous development across multiple platforms and technologies**

Learn more at: https://jazz.net/projects/clm/

NEW!

IBM Rational solution for Collaborative Lifecycle Management

| Rational Requirements Composer | Rational Team Concert | Rational Quality Manager |

Analyst

Developer

Architect

Quality Professional

Deployment Engineer

jazz

Jazz provides open collaboration across the software and systems lifecycle

COMMUNITY
Transparent collaboration and exchange of ideas

PRODUCTS
Application lifecycle tools that leverage the Jazz platform

PLATFORM
Open Services for Lifecycle Collaboration
and
Integration Services

Application frameworks and toolkits

Learn more at: https://jazz.net/about/

Open Services for Lifecycle Collaboration (OSLC)
An initiative aimed at simplifying data linking and tool integration across the lifecycle

Open Services for Lifecycle Collaboration

Barriers to sharing resources and assets among tools

- Multiple vendors, open source projects, and in-house tools
- Private vocabularies, formats and stores
- Entanglement of tools with their data

- ▶ Community Driven – specified at **open-services.net**

- ▶ Specifications for ALM, PLM and DevOps Interoperability

- ▶ Inspired by Internet architecture
  - Loosely coupled integration with "just enough" standardization
  - Common resource formats and services

- ▶ A different approach to industry-wide proliferation

Learn more at: http://open-services.net/

What's new – From CLM 2010 to now…

1. **Reduce the cost of ownership and administration**
   - Easier to buy: Simplify the packaging and licensing
   - Easier to install: Simplify installation of multiple products
   - Easier to deploy: Provide flexible deployment options; consistent platform support
   - Easier to Administer: Provide unified administration across the products
   - Easier to Learn: A sample application demonstrating CLM & online help

2. **Improve cross-product visibility and reporting**
   - Cross-capability reporting
   - Enhanced traceability views and lifecycle queries
   - Personal dashboards across all applications
   - Mini dashboard

3. **Strengthen the scenario-based integrations**
   - Work-items as a service
   - More link types "Tracks / Tracked by"
   - Enhanced consumability & common style
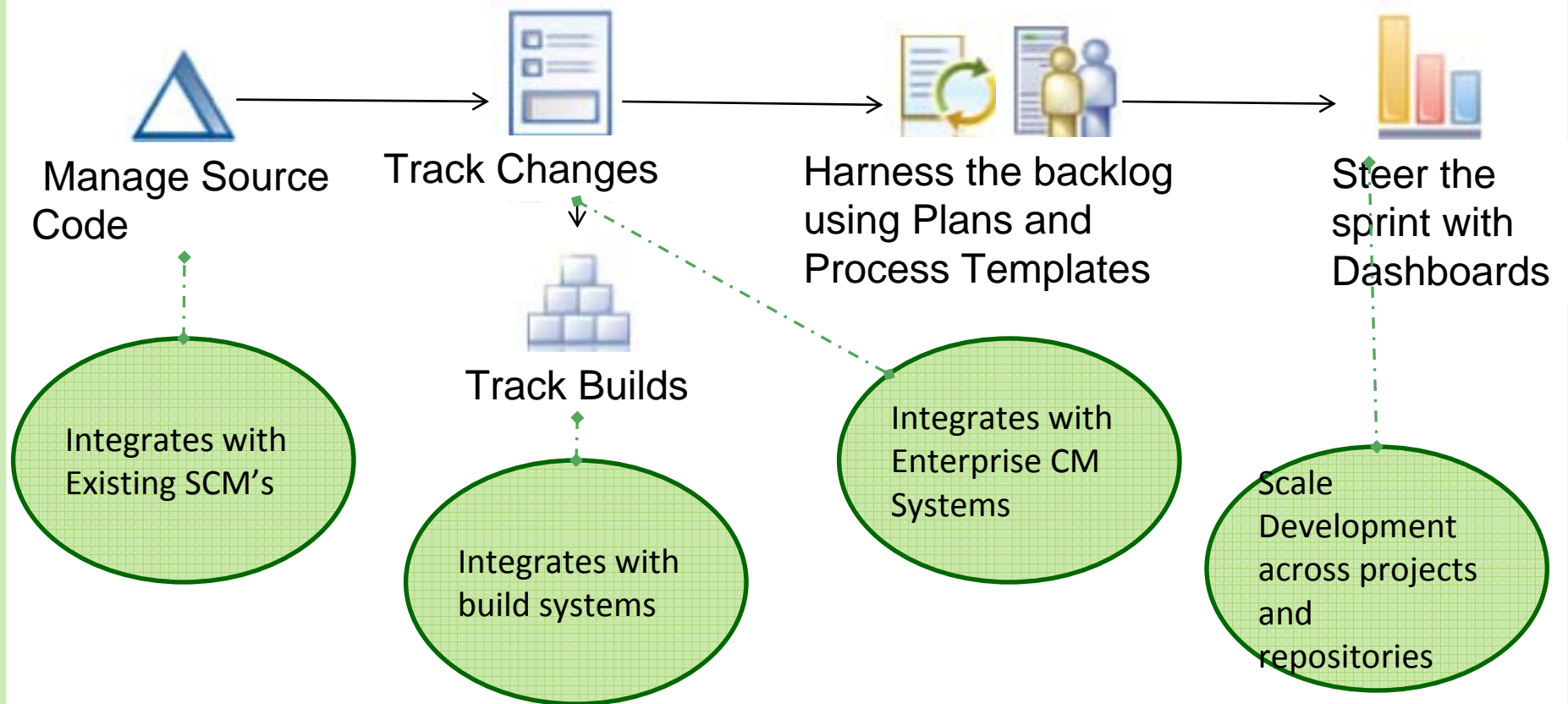   - A sample application demonstrating CLM

4. **We Self-host on what's new**

Adopting Agile Development with Rational Team Concert

- **Quality of releases improves 12%***
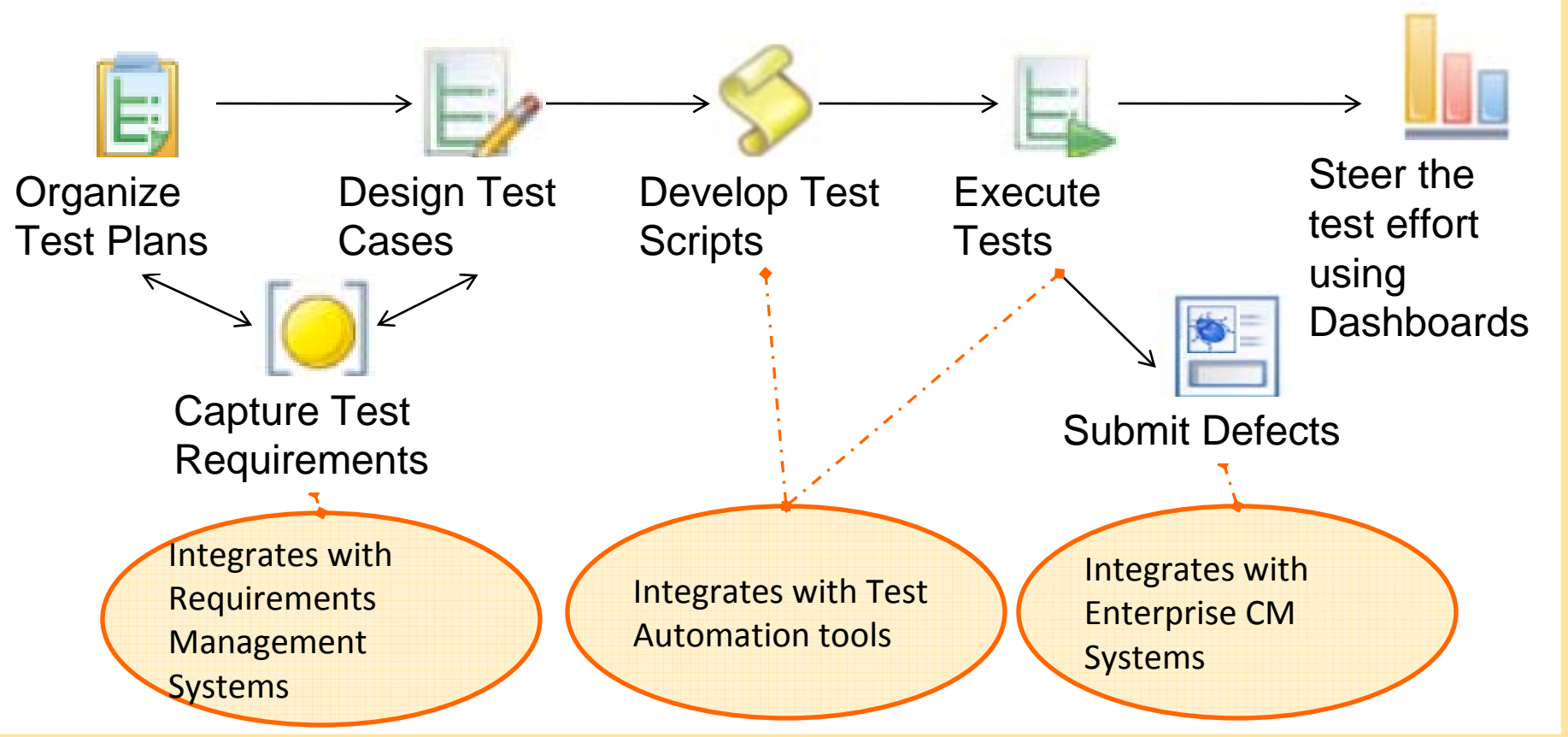- **Project governance improvements of 12%**

- **Team productivity increases of up to 50%**
- **Team collaboration performance up 25%***

Manage Source Code

Track Changes

Harness the backlog using Plans and Process Templates

Steer the sprint with Dashboards

Track Builds

Integrates with Existing SCM's

Integrates with build systems

Integrates with Enterprise CM Systems

Scale Development across projects and repositories

* Based on IBM customer surveys

IBM

Manage Quality with Rational Quality Manager

- Average cost of a defect found in production $241,000/defect
- Save average of 696 hours by reusing scripts*
- Save an average of 1755 hours by preventing and blocking duplicate defects*

Organize Test Plans

Design Test Cases

Develop Test Scripts

Execute Tests

Steer the test effort using Dashboards

Capture Test Requirements

Submit Defects

Integrates with Requirements Management Systems

Integrates with Test Automation tools

Integrates with Enterprise CM Systems

Source: GBS Test Practices study, 2005-2008, over 846 projects

Detail User Stories with Rational Requirements Composer

- Increase average on time performance by 161%*
- Reduce time overruns by 87% *

- Improve the percentage of projects that deliver the functionality needed by the business by about 75%*
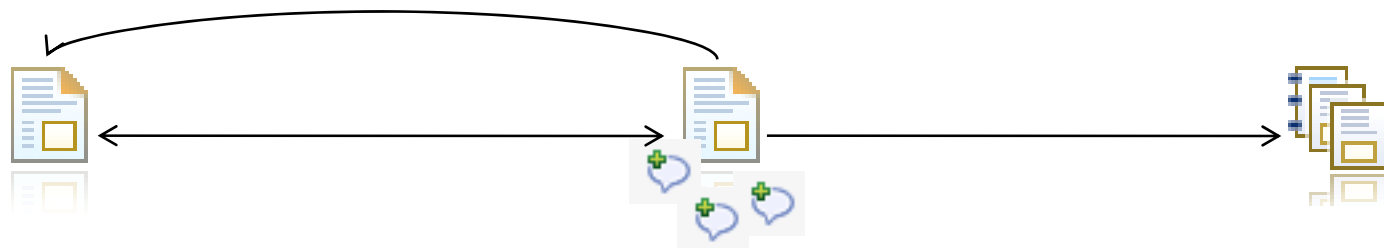
Elaborate User Stories with Sketches, Storyboards, Diagrams based on stakeholder feedback

Collect Comments, Request Reviews

Organize into Collections
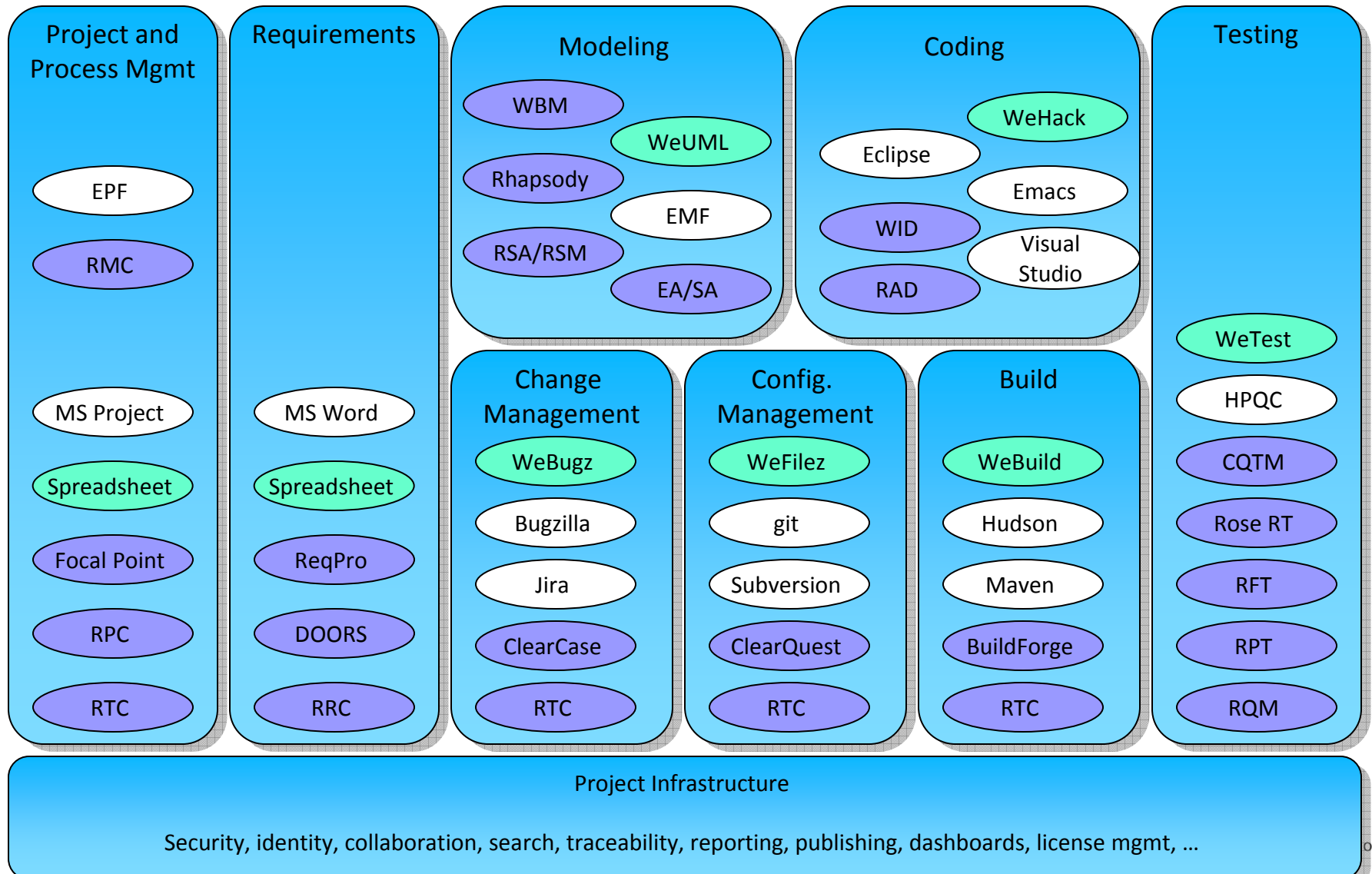
Integrates with OSLC Quality Management Systems

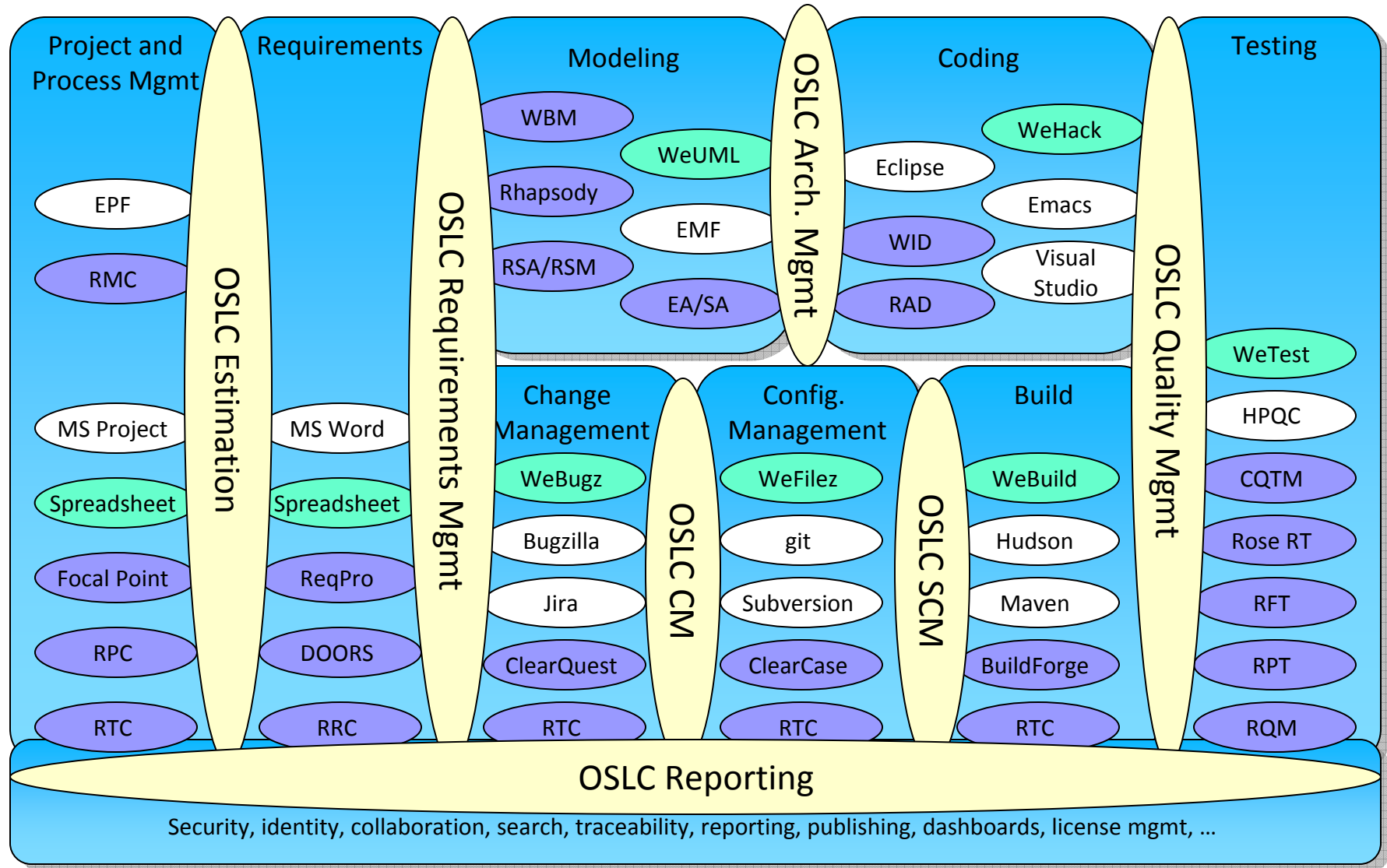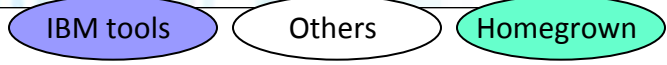*Source: IAG Consulting, September 2009, Business Analysis Benchmark measuring Requirements Maturity levels*
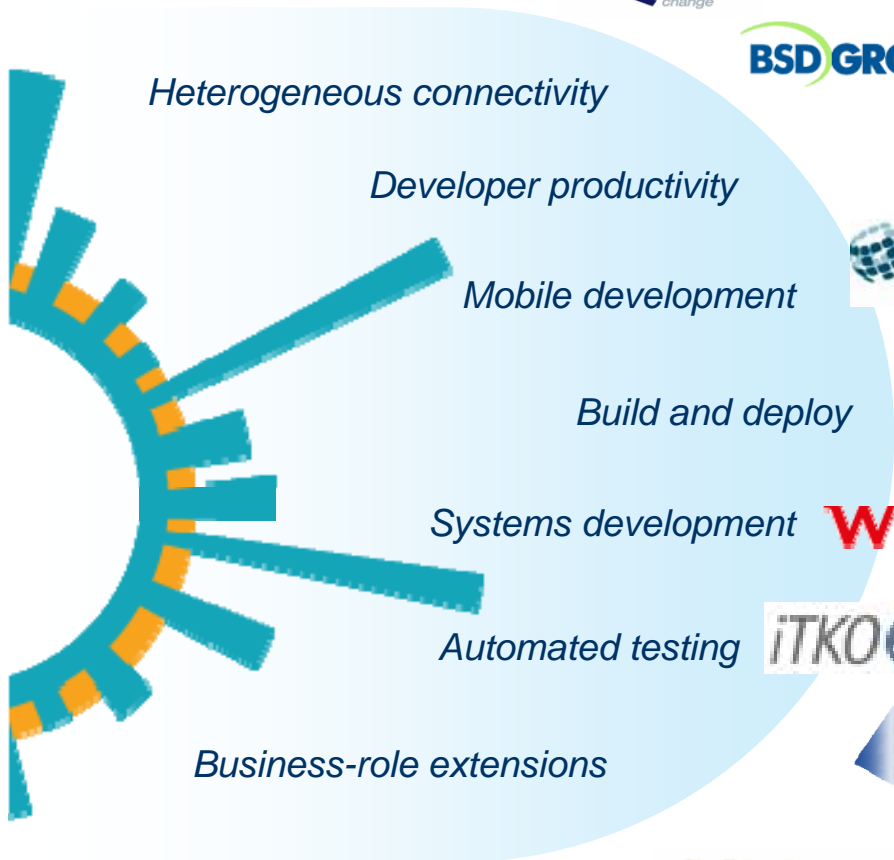
Back in the real world: Customer Tool Landscape

| IBM tools | Others | Homegrown |

Project and Process Mgmt

- EPF
- RMC
- MS Project
- Spreadsheet
- Focal Point
- RPC
- RTC

Requirements

- MS Word
- Spreadsheet
- ReqPro
- DOORS
- RRC

Modeling

- WBM
- WeUML
- Rhapsody
- EMF
- RSA/RSM
- EA/SA

Coding

- WeHack
- Eclipse
- Emacs
- WID
- Visual Studio
- RAD

Testing

- WeTest
- HPQC
- CQTM
- Rose RT
- RFT
- RPT
- RQM

Change Management

- WeBugz
- Bugzilla
- Jira
- ClearCase
- RTC

Config. Management

- WeFilez
- git
- Subversion
- ClearQuest
- RTC

Build

- WeBuild
- Hudson
- Maven
- BuildForge
- RTC

Project Infrastructure

Security, identity, collaboration, search, traceability, reporting, publishing, dashboards, license mgmt, ...

Unlocking Tool Data with OSLC

| IBM tools | Others | Homegrown |

Project and Process Mgmt
- EPF
- RMC
- MS Project
- Spreadsheet
- Focal Point
- RPC
- RTC

OSLC Estimation

Requirements
- MS Word
- Spreadsheet
- ReqPro
- DOORS
- RRC

OSLC Requirements Mgmt

Modeling
- WBM
- WeUML
- Rhapsody
- EMF
- RSA/RSM
- EA/SA

OSLC Arch. Mgmt

Coding
- WeHack
- Eclipse
- Emacs
- WID
- Visual Studio
- RAD

Testing
- WeTest
- HPQC
- CQTM
- Rose RT
- RFT
- RPT
- RQM

OSLC Quality Mgmt

Change Management
- WeBugz
- Bugzilla
- Jira
- ClearQuest
- RTC

OSLC CM

Config. Management
- WeFilez
- git
- Subversion
- ClearCase
- RTC

OSLC SCM

Build
- WeBuild
- Hudson
- Maven
- BuildForge
- RTC

OSLC Reporting

Security, identity, collaboration, search, traceability, reporting, publishing, dashboards, license mgmt, …

Building on CLM v3: Ecosystem solutions add value

Heterogeneous connectivity

Developer productivity

Mobile development

Build and deploy

Systems development

Automated testing

Business-role extensions

Getting started with Collaboratie Lifecycle Management

- Learn more at jazz.net: https://jazz.net/projects/clm/

- Download the software – free downloads on jazz.net
  - One download (any product) contains all software and trial license keys to try the CLM solution (https://jazz.net/downloads/rational-team-concert/)
  - About CLM: https://jazz.net/projects/clm/

- Try the scenario
  - Jazz.net wiki page: https://jazz.net/wiki/bin/view/Main/MTM_Lifecycle_Welcome
    - Deploy the sample application
    - Configure your environment
    - Try the scenario: https://jazz.net/wiki/bin/view/Main/MTM_Lifecycle_Scenario
  - Online Help – Scenario:

34

IBM

Learn More

Overviews:

- **Jazz:** jazz.net

- **OSLC:** open-services.net

Helpful Links

- **Powered by Jazz Webcast (June 14):** Agile Development at Scale Powered by Jazz, ALM Imperatives & CLM Link

- **IBM Rational Collaborative Lifecycle Management Demo: The Jazz Revolution** Link

- **Ebook**: IBM Case Study CLM Transformation Story Link

- **ALM Value Estimator**: See how much impact your organization can get using Rational software solutions Link

- **ALM Buyers Guide**: Establish strategic priorities, objective criteria, & purchasing process Link

- **ALM Everyware eKit**: Download the Gartner MarketScope on ALM (rating IBM Rational "strong, positive") and get a wealth of resources for improving team productivity. Link

- **IBM Rational Jazz Strategy**: Read the report by industry analyst Liz Barnett Report: Link

- **IBM Rational Collaborative Lifecycle Management**: Information from jazz.net: Link

Articles

- **Five Imperatives for ALM**: Link

- **Eliminate wasted time and work with CLM**: Link

- **The Business Value of Open Collaboration**: Link

IBM

www.ibm/software/rational